

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The substitute specification for the application has been amended as follows:

[0002]

line 2, delete "reservoir" and insert -reservoir,—
line 3, delete "Therefore" and insert –Therefore,—

[0003]

line 2, delete "First" and insert –First,—
line 5, delete "diffuser or the like" and insert –diffuser, or the like,—
line 7, delete "stage" and insert –stage,—

[0006]

line 2, delete "design" and insert –design,—
line 15, delete "Recently" and insert –Recently, —

[0013], line 5, "result" and insert –result,—

[0016]

line 1, delete "embodiment" and insert –embodiment,—
line 8, delete "vane" and insert –vane,—

[0024]

line 11, delete "outer edge 17" and insert –outer edge—
line 13, delete "inner edge 18" and insert –inner edge—
line 15, delete "suction side 18" and insert –suction side 18,—
line 19, delete "forces" and insert –forces,—

[0026], line 6, delete "outlet 13" and insert –outlet—

[0030], line 6, delete "cavity 20" and insert –cavity 20, —

[0031], lines 7-8, delete "separator's," and insert after zone 5 –of separator 1—

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2. The drawings received on August 18, 2008, as replacement sheets are acceptable.
3. Applicant's remarks, see pages 8-10, filed August 8, 2008, with respect to claims 1-9 have been fully considered and are persuasive. Examiner acknowledges applicant removing reference numerals from the new claims 10-19 and recognizes that the new claims 10-19 replace claims 1-9 which have been canceled. Accordingly, the rejection of claims 1-9 has been withdrawn.
4. The following is an examiner's statement of reasons for allowance: In independent claim 10, applicant recites the structure of the vanes for the instant invention that clarify any ambiguities and deficiencies for the description of the structure of the vanes of the previously canceled claims. The recitation for the structure clearly states ". . . a plurality of curved, parallel vanes disposed between the top plate and the bottom plate and defining diffuser channels therebetween, each of said vanes having a thickness which increase continuously in the flow direction to a maximum, then continuously decreases resulting in a cross sectional area of the diffuser channels which expands evenly, said diffuser channels leading to an outlet in the flow direction . . ." This limitation is also recited in independent claim 19 which includes the subcombination, the vane diffuser, in a separation apparatus.
5. The closest prior art references are Christiansen '437 (US 7,144,437), McEwan '424 (US 4,767,424), and GB '699 (GB 1,119,699). Christiansen '437 teaches a vane diffuser for an inlet device. McEwan '424 teaches an arrangement between upper and lower walls of guide vanes disposed one behind the other in the direction of flow where the flow is evenly distributed over the cross section of the separation apparatus with the vane-type inlet device. GB '699 teaches an inlet and distribution device made of a number of curved guide vanes placed one behind the

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other where the leading end of each vane has a sharp angle with the direction of the main flow of the gas/liquid mixture entering a separation apparatus, such that each vane intercepts and deflects the feed stream and is capable of effecting a separation between liquid and vapor by inertia and centrifugal force; the plurality of vanes form a series where the vanes are placed at such a distance from each other that a substantially uniform distribution of liquid and vapor is obtained over a cross-section in which the series of vanes extends.

Each reference teaches a gas/liquid separator with a vane-type inlet device used in liquid/gas separation apparatus, and each of Christiansen '437, McEwan '4244, and GB '699 are silent regarding the physical characteristics of the vane dimensions, such as width, depth, or "thickness." The prior art of record does not teach or fairly suggest the structural limitations relating to dimensions for the vanes as recited in independent claims 10 and 19. Additionally, it would not have been obvious to one of ordinary skill in the art at the time of the present invention to provide such structure because none of the prior art references of record suggest such modification. Accordingly, independent claims 10 and 19 and dependent claims 11-18 linked to claim 10 are allowable.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and is listed on PTO-892 (Notice of References Cited).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SONJI TURNER whose telephone number is (571)272-1203. The examiner can normally be reached on Monday - Friday, 10:00 am – 2:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Duane S. Smith/
Supervisory Patent Examiner, Art Unit
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